Farm Bulletin 23

1967

PRESERVING FRUITS

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Farm Bulletin 23
November 1967

Produced by the

Department of Agricultural Information and Communications in cooperation with the Department of Home Technology

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Meanings of Terms and Abbreviations

Acid — any substance with a sour taste.

Ascorbic acid — Vitamin C.

Bake — to cook by dry, contained heat, usually in the oven.

Blanch — to partially cook in boiling water.

Boil — to cook in liquid at boiling temperature (212°F at sea level).

Butter — a smooth food paste made from fruits, nuts, etc., for bread spread. The product is made by stirring the fruit with sugar, spices, etc., till of a butter-like consistency.

C — cup.

Caramelize — to melt sugar over heat slowly until it turns brown.

Colander — a strainer used in cooking.

Combine — to mix together.

Concentration — the heavy distribution of a substance on a surface.

Consistency — degree of intensity or thickness, especially of liquids.

Chop — to cut into small pieces with a knife or cutter.

Cut — to divide into pieces with a knife or scissors.

Crush — to squeeze out of shape; to mash, to grind into bits.

Crystallization — act or process of crystallizing; the turning or formation of crystal-like particles from a liquid state.

Core — the innermost or the center of a fruit.

Copper — a tough, metallic element.

Cube — a cut portion having six sides.

Dice — to cut into very small cubes.

Done — cooked sufficiently.

Drain — to filter; when applied to foods fried in deep fat, it means to put the food on absorbent paper to remove excess grease before serving. Paper towels and unglazed paper bags are useful for the purpose.

Decant — to pour off gently so as not to disturb the sediment or precipitate.

Evaporation — passing off as vapor.

Extract — a substance or preparation obtained through distillation or other chemical means.

Fahrenheit — a thermometric scale on which 32° is the freezing and 212° the boiling point of water.

Fermentation — the chemical change produced in a substance by the action of organisms, as when milk sours.

Foam — froth.

Fry — to cook in hot fat.

Gel — a jelly-like material formed by the coagulation of a colloidal fluid; a gelatinous precipitate.

Glaze — to coat with a shiny substance.

Granulated sugar — a pure sugar which has been crystallized and centrifuged, then sent through a granulator where the crystals are dried, separated, and screened.

Homogenous — of the same kind, having similar parts.

Jam — a fruit preserve which consists of fresh fruit or fruit pulp cooked with sugar until thick and homogenous.

Jelly — a semisolid food made by congealing fruit syrup or juice.

Marmalade — a preserve containing pieces of fruit similar to jelly.

Mash — to reduce to a soft, pulpy state by beating or pressure.

Melt — to liquefy by heating.

Mold — a superficial growth produced on various forms of organic matter, especially when damp and decaying, by living organisms.

Paraffin — a colorless, odorless, and tasteless substance used for various purposes, including the preservation of food.

Parboil — to cook in boiling or simmering water until partially or fully cooked preliminary to some other method of preparation.

Pare — to remove the skin.

Pectin — a substance that causes jellying.

Peel — to remove the outer skin by stripping it off either with the fingers or with a paring knife; the outer skin itself. When using citrus in cooking be sure to pull off the entire inside white portion.

pH – a symbol or scale which permits the expression of acidity and alkalinity in units which can be measured.

Pinch – a tiny amount.

Pint – a measure of capacity, 16 liquid ounces, or $\frac{1}{2}$ quart.

Protopectin – any of a group of water-insoluble pectic substances occurring in plants and yielding pectin or pectinic substances on hydrolysis.

Pulp – the fleshy part of a fruit.

Puree – the smooth product that looks like baby food.

Pyrex – a trademark applied to a variety of glasses and glassware usually resistant to heat, chemicals, or electricity.

Quart – a unit of capacity; in liquid measure equal to 2 pints or $\frac{1}{4}$ gallon.

Recipe – directions for preparing a dish.

Rind – the outer covering; thick skin.

Rinse – to wash lightly; especially to wash out soap or any other substance with fresh water.

Scrape – to shave or remove the surface of a solid.

Scoop – to remove or make a hollow with a scoop.

Sieve – a straining pan.

Shell – to remove or take out from the shell.

Shred – to cut into thin strips, or to rub on a coarse grater until the food is transformed into strips.

Simmer – to cook in liquid just below the boiling point. Water is simmering when small bubbles begin to rise from the bottom but do not yet break the surface of the water.

Skim – to lift off scum from the surface of a liquid.

Slice – to cut into slices; to cut into or cut across with a sharp instrument.

Spice – an aromatic or pungent vegetative substance used for seasoning food.

Soluble – capable of being dissolved.

Squeeze – to press.

Steam – water in gaseous state especially when produced by boiling.

Sterilize — to free from living microorganisms.

Stir — to disturb the relative position of the particles or parts of, as of a fluid, by passing through it or disturbing its surface.

Substrate — a substance acted upon by an enzyme.

Strain — to filter through a screen, cloth, or any other porous substance.

Thermometer — instrument used for measuring temperature.

t — teaspoon.

T — tablespoon.

Texture — structure; surface characteristics.

Thickness — density.

Tissue — the cellular substance of which living bodies are composed.

Toast — to brown by heat.

Tongs — an instrument used for grasping or lifting something.

Transparent — permitting distinct vision through a solid substance.

Yeast — a yellow substance, an aggregate of minute fungi; used to leaven bread and ferment liquor.

PRESERVING FRUITS

by

Luz U. Oñate*

INTRODUCTION

Among the many methods of preserving fruits, probably the most common is the method by which we preserve fruits in sugar. Most housewives, however, either do not know how this should be done, or believe that fruit preservation is limited only to food processing firms. This bulletin aims at giving the housewife pointers or steps on preserving fruits in sugar, as well as convincing her that she, too, can do it right at home. Included are recipes for jellies, marmalades, jams, conserves, butters, pastes, and preserves.

Preserving is based on the high solid-high acid principle. That is, a substrate with 65 percent or more soluble solids and which contains substantial acids may be processed in mild heat or in simmering temperature, provided that it is protected from air. Based on this principle then, it is possible for us to process as many fruits as possible and make them into jellies, marmalades, jams, butters, or paste, thus making fruits last longer than they would otherwise last if they were left raw.

Preserving fruits may even be adapted in the Philippines as a home industry, since many of our fruits are suitable for preservation, and especially because we cannot store our fruits for long periods.

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There are a number of food processing firms which market preserved fruits, and which draw much profit from the sale of these preserves. The public never grows tired of preserved fruits, especially when raw ones are out of season. You can preserve them even in your own kitchen, and thus make your family enjoy out-of-season fruits on your table.

Using your ingenuity and creativeness, you can think of different combinations for your preserves. Perhaps you can combine two or more fruits which may not seem attractive but are otherwise excellent in quality. There are some fruits which are not easily sold because they do not look delicious or appealing to the buyer. You can make these fruits into preserves, and make them attractive and pleasing to the eye as well as to the taste buds.

And in addition to the pleasing and attractive flavors of fruit preserves, we should not forget that they also contain substantial nutritive value. This should erase what most of us have been thinking all along: *fruits, when preserved, do not lose their nutritious qualities.*

This bulletin will give you a number of ways to preserve fruits; these ways have been tried and tested in the food laboratories of the College of Agriculture. College home technologists believe that every housewife should try her hand at preserving fruits right in her own kitchen, and discover for herself the numerous advantages and pleasures offered by fruit preservation.

And so to the housewife, a challenge: why not preserve fruits in your kitchen?

Below is a big help to you. It will help you plan your time-table for preserving fruits if you know what fruits are in season at different months.[2]

Throughout the year	**Papaya, banana, guava, balimbing, camias**
January	**Citrus**
February	**Atis, cantaloupe, watermelon, starapple (caimito)**
March	**Cantaloupe, watermelon, starapple, mango, kapulasan**
April	**Cantaloupe, watermelon, starapple, mango, pineapple, macopa, cashew, mabolo, tiesa, zapote**
May	**Mango, pineapple, macopa, cashew, mabolo, chico, duhat, siniguelas**
June	**Pineapple, duhat, chico, avocado, santol, bignay, pili, nangka, guayabano**
July	**Avocado, santol, bignay, pili, rimas, marang**
August	**Santol, rimas, bignay, marang, tamarind, mangosteen, durian**
September	**Tamarind, rambutan, lanzones**
October	**Tamarind, rambutan, lanzones**
November	**Lanzones, citrus**
December	**Citrus**

[2] Fruiting schedule courtesy of Dr. Helen Valmayor of the Department of Agronomy, U.P. College of Agriculture.

JELLIES

A successful jelly should be clear, transparent and bright. It should not be syrupy nor sticky. It should be tender but firm and angles must retain their shape.

Fruits contain pectin in varying amounts. To make up for pectin deficiency, you can combine a fruit juice which lacks pectin with another which is high in pectin. Slightly underripe fruits contain more pectin than the sweeter and riper fruits. Combine slightly underripe fruits with ripe fruits; the former will supply pectin and the latter will supply the flavor.

To extract pectin, you have to boil the fruit first. The amount of water you should add to the fruit before extraction depends on the juiciness of the fruits.

In order to reduce the loss of ascorbic acid, fruit juices have to be protected against contamination with copper and iron. Keep the temperature and pressures low. Likewise, the oxygen should be limited.

Pectin Test

You have to test the pectin in the fruit juice because the amount of sugar which you will add depends upon the pectin content of the extract. There are two tests which you can use: (1) the jelmeter test and (2) the alcohol test.

Jelmeter Test. This method of testing makes use of a calibrated glass tubular device called the *jelmeter*. Using this instrument, measure the rate of flow of juice for a minute. The pectin concentration mainly influences the viscosity of the juice. If the pectin content is high, the juice will be thick and gummy.

Alcohol Test. The alcohol test is more practical for you since the materials needed for the test are close at hand.

Combine a tablespoon of extracted fruit juice with a tablespoon of alcohol in a pyrex cup. If no pyrex cup is available, any other will do. Rotate the cup gently so that all the juice comes in contact with alcohol. If the juice is rich in pectin, a firm jelly-like mass will form. In this case, add about three-fourths to one cup of sugar to every cup of extract. If the combination of fruit juice and alcohol forms several lumps, the extract is medium in pectin content and requires more evaporation for sufficient concentration. When few stringy lumps are formed, the extract should be concentrated and then tested before determining the proportion of sugar to juice.

Jellying Point Test

After boiling the jelly mixture for 5 to 10 minutes, you can test for jellying point by three methods: the sheet test, the thermometer test or the plate test.

Sheet Test. Dip a cool metal spoon in the boiling jelly mixture. Raise it to about a foot above the kettle so that it is out of the steam. Turn the spoon to allow the syrup to run off the side. If the syrup forms two drops that flow together and fall off as one sheet, the jelly is done.

Thermometer Test. Cook the jelly to 8°F higher than the boiling point of water. Use a jelly, candy or deep-fat thermometer. Sugar concentration at this temperature should form a satisfactory jelly. The thermometer bulb should be read at eye level and must also be completely covered with jelly mixture.

Plate Test. Pour a small amount of boiling jelly on a cold plate and cool for a few minutes. If the mixture gels, the jelly is done.

EQUIPMENT

Cutting board
Pan, large enough to sterilize glasses
Tray
Tongs
Thermometer
Measuring cups
Paring knife
Wooden spoon
Jelly bag made of 2 or 3 pieces of cheese-cloth or sugar bags.
String
Support for the jelly bag
Jelly glasses with lids
Paraffin
Tin can with improvised handle for paraffin
Tablespoon

Wash the fruits thoroughly and remove blossoms, stem ends and spoiled parts. Drain, cut, or crush before measuring. If the remaining pulp will be used for jam or butter, separate pulp from skin, core, and seeds before cooking.

Cook 2 quarts or less at a time. Add just enough water to get the greatest amount of juice and pectin. Juicy fruits do not need much water. Citrus fruits, because of the longer boiling period needed to make the rind tender, usually need twice the usual volume of water.

Boil until tender. Do not overcook. Prolonged cooking destroys the jellying qualities of any fruit.

Pour the cooked fruits into a jelly bag tied across the top of a deep pan and let the juice drip into the container beneath. Squeeze the bag to expel the juice as fast as possible. This results in a cloudy juice. Put the extracted juice into a bag made of 4 layers of cheesecloth and allow to drip. This process takes 2 to 4 hours.

Put the remaining pulp through a sieve to make fruit butter or jam. Fruits which are rich in pectin and distinct in flavor can stand 2 extractions. After draining, add a small amount of water to the pulp and cook the mixture for a few minutes. Then drain the juice off the pulp. You can either mix this with the juice from the first extraction, or make it separately into jelly.

Use a large flat-bottomed pan which will hold 4 times the amount of juice to be cooked. This shortens cooking time by permitting the liquid to evaporate rapidly. Jelly should be made as quickly as possible, so allow the juice to boil vigorously.

Measure juice into the pan and bring to a boil. Add sugar and stir until the sugar is dissolved. You can determine the

amount of sugar to be added by the pectin and acid content of the juice. For every cup of fruit juice, add ¾ to 1 cup of sugar.

Add about 2 or 3 tablespoons of calamansi juice to 4 cups of sliced fruit to make your jelly bright and attractive. This will also aid in preserving and improving the flavor.

You can make interesting flavors by combining 2 to 5 different fruits.

If you want your jelly to be full of flavor and bright in color, cook the fruits and sugar rapidly. Boil the juice and sugar rapidly until jellying point is reached, or up to 108°C on a candy thermometer.

Remove the jelly from the heat and skim the surface if necessary. Pour the hot jelly into the sterilized glasses to within ½ inch of the top. Hold the saucepan about an inch above the glass while pouring to avoid spilling the jelly on the glass.

Sealing with paraffin. As soon as the jelly is set and cool, remove any jelly that may be on the glass above the surface of the jelly with a damp cloth. Dry. Then melt the paraffin in a can over boiling water. Do not allow it to get too hot. Pour a thin layer of the paraffin over the jelly and slightly rotate the glass as soon as the paraffin is poured on so that it will stick to the glass above the surface of the jelly. Place the dry lid on the jelly glass, label, and store the jelly in a cool and dry place.

It will take a lot of practice before you can prepare a completely successful jelly. You will probably meet some difficulties in preparing jelly at first. It might help you to know the characteristics of poor jellies and why you fail to produce good ones.

Syrupy jelly is the result of too much sugar, undercooking and prolonged cooking or use of a very acidic juice-sugar mixture.

If your jelly is tough or gummy, it is caused by too little sugar, overcooking, or too much pectin.

Dark jelly is the result of too much juice, too slow or too long cooking or improper sealing with paraffin.

If you strained the juice improperly, or if you used unripe fruits which contained more starch than ripe ones, your jelly will be cloudy.

On the other hand, fermented and moldy jelly is due to too little sugar, improper sterilization of glasses, and delayed or improper paraffin sealing of glasses.

Sometimes you will notice that the jelly produces a "weeping" effect. This is the result of too much sugar. It may also be caused by a very thick layer of paraffin, a very warm storage place or varying storage temperatures.

Your jelly will sort of fade if the storage place is too warm or too bright, or if the jelly has been stored for a long time.

Sugar will crystallize if there is too much of it. It could also be the result of overcooking or too late addition of sugar.

SANTOL-GUAVA JELLY

4 c santol pulp
4 c guava pulp
4 c water

Wash the fruits thoroughly, discarding any spoiled parts. Cut them into small pieces without removing the skin. Measure pulp already cut up, add seeds and water. Cook for 10 minutes or until tender.

Pour the hot cooked fruit into a jelly bag. Proceed as in general directions. For every cup of juice, add 3/4 cup of sugar.

You can combine other fruit juices such as papaya or banana juice with santol.

GUAVA JELLY

4 c guava pulp
3 T calamansi juice
water

Select a mixture of slightly underripe and ripe guavas. Wash thoroughly; remove stem and blossom ends. Separate pulp from the seeds if remaining pulp will be used for jam. Slice fruits thinly. Add enough water to cover the fruit, placed compactly in kettle. Boil until fruit is very soft. Strain.

Proceed as in generai directions. For every cup of juice, add ¾ cup of sugar.

PAPAYA JELLY

4 c papaya pulp
2 c water
3 T calamansi juice
sugar

Use "manibalang" or green and ripe papayas. Proceed as in santol-guava jelly. For every cup of juice, add ¾ cup of sugar.

BANANA JELLY

4 c banana pulp
2 c water
3 T calamansi juice
sugar

Proceed as in santol jelly. For every cup of juice, add ¾ cup of sugar.

SINIGUELAS JELLY

4 c siniguelas pulp
1 c water
sugar

Proceed as in santol-guava jelly. For every cup of juice, add ¾ cup of sugar.

MARMALADES

Jellies and marmalades are similar. In fact the principles of jelly-making also supply to marmalades. They differ only in that marmalades contain thin slices of fruits, usually orange, grapefruit, lemon rind, or any firm fruit.

For marmalades, you can use either a single fruit or more than one fruit, depending upon your taste. You can use many kinds of fruits which contain jelly-forming material.

EQUIPMENT

Use the same equipment as in jelly-making.

GENERAL DIRECTIONS

Wash fruits thoroughly. Discard the discolored and spoiled portions, as well as the stem and blossom ends. Add water to the prepared fruits. Cook them for sometime before adding sugar or until tender. When you have added sugar, continue boiling until the mixture satisfies the sheet test.

Pour the hot marmalade immediately into sterilized jars to within ½ inch of the top. Cool the marmalade and wipe the jars above the surface of the marmalade thoroughly with a damp cloth. Do not forget to dry the inside and top edges. Then, melt paraffin in a can over boiling water and pour a thin layer of paraffin. While the paraffin is still in its liquid form, slant each jar and turn it around. This will seal the sides of the jar very well. Remember that if the jar is wet or sticky, the paraffin will not serve its function as a good seal. Do not touch the paraffin after it has cooled.

So that you can preserve the color and flavor of marmalades, store the marmalade jars in cool, dark and dry places.

Here are additional pointers to help you prepare marmalades successfully.

If you will preserve citrus marmalade, it will help a lot if you slice the peelings paper-thin. Sharpen your knife from time to time because citrus fruits do dull knives very quickly. You may or may not squeeze the juice from the fruits before slicing them. You can also try soaking the peelings overnight in water before cooking. This will greatly improve the marmalade.

You can further improve your marmalade if you cook the peelings in water for about ten minutes on the second day, and if you put this aside for cooking on the third day. When you slice the fruits, see to it that you slice them into uniform pieces. If you cut them too small, they may not be able to retain their shape after cooking. If your slices are too large, they may not have the same tenderness throughout. If the fruits are very small, you may prepare them whole.

You must distribute the shredded pulp and skin evenly in the jellied mass. Take note that in citrus marmalades, you can almost see through the jellied mass and the sliced fruits.

The flavor of marmalades is characteristic of the fruit. A successful marmalade is free from excessive sweetness, bitterness or any overcooked flavor.

GRAPEFRUIT-ORANGE MARMALADE

grapefruit
orange
3 T calamansi juice
5 c water
6 c sugar

Scrape the surface of the grapefruit and oranges with a sharp knife to open the cells. This will also result in a mild flavor. Boil for three minutes and cool in cold water. Cut the fruiuts into eight sections each, and scoop out the pulp. Discard the seeds and cut the fruits up. Return them to the kettle. Then, slice the rind pa-

per-thin. Put the sliced rind also in the kettle. Add calamansi juice and water and simmer for about an hour in an uncovered kettle. Add sugar and stir until it has dissloved. Simmer for about 50 minutes more. Remove from the heat. Test for doneness, and then follow the general directions.

GUAVA MARMALADE

2 c guava pulp, sliced
1 c sugar
1 T calamansi juice
1 c water

This is a combination of guava jelly and guava preserve. Slice the guava preserve into small and thin pieces. Cook the jelly. When the jellying point is reached, add the guava preserve and continue cooking for 5 minutes more. The guava preserve and jelly should be equal in amount. Proceed as in general directions.

PINEAPPLE MARMALADE

3½ c pineapple, finely shredded
1 c sugar
2 c calamansi rind, sliced paper thin
1½ c water

Boil the lemon until it is tender. This should take about 25 minutes. Add sugar to the sliced pineapple fruit mixture and boil until it satisfies the sheet test. This will take about 40 minutes more. Then follow the general directions.

PAPAYA MARMALADE

2 c papaya, sliced paper-thin
1 c sugar
1 T calamansi juice
1 c sugar

Follow the general directions.

SANTOL MARMALADE

2 c santols, sliced
1½ c sugar
1 c water

Blanch santol for 10 minutes and rinse it with cold water. Peel and divide it. Then boil for 30 minutes.

Rinse with cold water and remove the seeds. Soak it in lime water for 20 minutes. Wash very well and slice into small pieces.

Follow the general directions.

GREEN TOMATO MARMALADE

2 c tomatoes, green, cut
1½ c sugar
3 calamansi
1 c water
pinch of salt

Trim green tomatoes and cut into small pieces. Cut calamansi into thin slices and boil in water for 5 minutes. Discard water and repeat boiling to remove the bitter flavor and peel. Drain.

Combine ingredients and boil until it satisfies the sheet test.

Follow the general directions.

JAMS

Jam is a preparation which consists of fresh fruit or fruit pulp cooked with sugar until it is homogenous and thick. Its consistency is firm enough to withstand movement without its position being altered in the container. Its surface will not even be broken, because the fruit tissues are embedded in a firm gel.

EQUIPMENT

Cutting board
Tray
Colander
Thermometer
Measuring cups
Paring knife, stainless steel
Tongs
Wooden spoon
Tablespoon
Low, broad jelly glasses with lids
Paraffin
Tin can for paraffin

GENERAL DIRECTIONS

Peel and chop finely or crush the whole fruits. Before crushing solid-fleshed or underripe fruits, cook them with a little water for about 10 minutes or until they become a little bit soft.

Measure the fruit and put it in a kettle. Bring it slowly to a boil. There must be sufficient fruit juice or water to keep the fruit from sticking to the bottom of the kettle.

Add sugar and stir. For every cup of fruit, add ¾ to 1 cup of sugar. If you find it necessary, add lemon juice to the fruit.

Boil rapidly, stirring constantly to 9° F above the boiling point of water or until done.

To keep the fruit from rising to the top of the finished product, stir the mixture at frequent intervals for 5 minutes after cooking. Stir gently to prevent the presence of air bubbles in the jam.

Pour the jam into the hot sterilized jars. Cool, wipe and dry jar above the jam. Seal with a thin layer of paraffin. Let it cool overnight. Cover with the lids or with white paper. Store the jam in dark, cool, and dry places.

Jam Tests

How are you to know if the jam is already done? You can use either the thermometer test or the plate test.

Thermometer Test. As the name implies, you will need a thermometer for this test. Before taking the temperature, stir the mixture thoroughly. Place the thermometer vertically at the center of the kettle so that the covered bulb is with the fruit mixture and so that you can read the thermometer at eye level. When the temperature reaches 9°F more than the boiling point of water, the jam is done.

Plate Test. The plate test is a simpler method. Just put a drop of boiling jam on a cold plate. If it gels, the jam is done.

Jam, when cooked, should be thick and more or less of homogenous mass. There must be an even distribution of the fruit in the jellied juice. The liquid must not separate, but must be soft enough to spread.

As in marmalades the flavor should be characteristic of the fruit. Finished jam must not be overcooked and must be free from excessive sweetness or spiciness.

You can have jam throughout the year, since they can be prepared using almost any kind of fruit. Banana, for instance, is in season all year round. You can also use guava, mango, papaya, santol, etc. Try each of the recipes below.

BANANA JAM

6 mashed bananas (3 cups)
1½ c sugar
¼ c calamansi juice
1 c orange juice

Combine the sugar and juice. Stir until the sugar has dissolved. Add banana, bring to a boil and let simmer, stirring constantly until the mixture is thick. Proceed as in general directions.

GUAVA JAM

2 c guava pulp
3 t calamansi juice **1½ c sugar**

Wash ripe guavas. Remove stem blossom ends and seeds. Boil the pulp until soft and mash. Follow general directions.

MANGO JAM

2 c mango pulp **1 c sugar**

Follow general directions. For sour mangoes use ⅔ cup of sugar per cup of mangoes. Twenty-four mangoes will fill a pint jar.

GUAYABANO JAM

2 c guayabano pulp, mashed **1½ or 2 c sugar**

Follow general directions.

SANTOL JAM

2 c santol pulp
1½ or 2 c sugar
1 c water for precooking santol

Blanch santol for 10 minutes and peel. Boil for 5 minutes. Drain and chop the fruit finely. Proceed as in general directions.

PAPAYA-PINEAPPLE JAM

1 c ripe papaya, mashed
1 c pineapple, chopped fine **1½ c sugar**

Follow general directions.

PINEAPPLE JAM

2 c pineapple pulp **1½ c sugar**

Peel ripe pineapple and remove the eyes. Wash and chop finely, and measure. Proceed as in general directions.

PAPAYA JAM

2 c papaya, ripe **3 T calamansi juice**
1⅓ c sugar

Wash and peel the ripe papaya. Open and remove all seeds; mash pulp and measure. Proceed as in general directions.

TAMARIND JAM

1 c tamarind puree (3 parts water, 1 part pulp)
1 c sugar

Proceed as in general directions.

CONSERVES

Conserves are prepared in the same way you prepare jams. A conserve is different from a jam only in that it is a blend of two or more kinds of fruit. It usually contains thin slices of citrus fruit or juice, and sometimes raisins or nut meats, or even both. Small fruits and berries are usually conserved whole, and large fruits are usually sliced or dried.

EQUIPMENT

Use the same equipment as in jam-making.

GENERAL DIRECTIONS

Wash the fruit and discard any spoiled or discolored portions. Remember to remove the stem and blossom ends. For better texture, cook tough-skinned fruits for a short time before you add sugar. Chop the nuts to about the size of corn kernels before adding them to the conserve.

Sterilize jars, as in jellies.

Cook the conserve. You have to use a large saucepan so that the conserve will be cooked quickly to the proper thickness. Heat the fruit-nut mixture with the sugar slowly, and stir constantly until all the sugar has dissolved. Bring the mixture to a boil; continue boiling until it is thick.

Take the pan off the stove, cover and let it stand for 2 minutes. Skim the conserve quickly if you notice foam. Stir the hot conserve and pour it into the hot sterile jars. Seal the jars.

Store the jars of conserve in cool, dark and dry places. Such storage places will help preserve the flavor and color of the conserves.

TOMATO CONSERVE

2 c tomatoes, peeled, sliced
½ c raisin, seedless
2 c sugar
1 calamansi, cut into small pieces
½ c cashew nuts, chopped

Put the tomatoes, raisins, sugar, and calamansi into a kettle. Add the cashew nuts before the mixture is cooked thoroughly and boil for 5 minutes longer. Proceed as in general directions.

WATERMELON CONSERVE

2 c sugar
2 c watermelon rind, finely diced
1½ tbsp. calamansi juice
½ c raisins
1 orange, diced
1 T orange rind, sliced
½ c nuts, chopped

Combine the watermelon rind, calamansi juice and sugar and bring to a boil. Stir in the raisins and let simmer briskly for 15 minutes, stirring constantly. Reduce the heat and cook for 10 minutes longer. Add the rind and nuts and cook for 5 minutes, stirring constantly. Proceed as in general directions.

PINEAPPLE-COCONUT CONSERVE

2 c pineapple, chopped
1 orange, sliced with peel
¾ c coconut, grated
3 c sugar

Combine the pineapple, orange pulp and the sliced peel of an orange. Bring the mixture to a boil and cook until the peel is tender. Add the coconut and sugar and continue to boil almost to the jellying point. Pour into hot sterilized jars and seal.

If you want your finished conserve to retain its natural fruit flavor and bright color, cook only 4 cups of mixture at a time. This will also shorten your cooking time.

BUTTERS

Many housewives see little difference between butters and jams, especially because they have common uses. One is mistaken for the other, and vice versa. But as you become versed in preparing butters, you will find it easy to tell which is which. For one thing, butters are thinner than jams in consistency.

Butters are made from the pulp of fruits or fruit mixtures. The texture of finished butter is semisolid and smooth throughout. It spreads easily but does not run.

Instead of fresh fruit, use fruit pulp in preparing butters. To give the butter its proper smoothness, you will have to chop hard fruits and mash soft ones.

EQUIPMENT

Use the same equipment in jam-making. You may use any kind of jar or jelly glass since butter is not expected to hold its shape when it is turned out of the jar.

GENERAL DIRECTIONS

Wash the fruit and discard spoiled and discolored portions. Remove the stem and blossom parts. Add water and cook the fruit until soft. Then put it through a colander or sieve. This will provide the butter a smooth texture.

Cook the butter. Place no more than 4 cups of prepared fruit into a large saucepan and add sugar. Generally you should add ¾ cup of sugar to each cup of fruit pulp. Heat the fruit pulp and sugar slowly, stirring constantly until all the sugar is dissolved. Then boil the mixture rapidly until it is thick. See to it that you stir the mixture constantly during the cooking as it scorches easily.

Take the pan off the stove and skim the butter if a foam is present. Pour the hot butter into hot sterilized jars. Seal and then store the butter in a cool, dark and dry storage place.

We can try making two kinds of butter – mango and guava. After finding out for yourself how easy it is to prepare fruit butter, you will probably want to try making butter out of other fruits in season.

MANGO BUTTER

4 c mango pulp, fully ripe 3 c sugar
½ c water

Scrape mangoes and pass through a sieve. Cook slowly for one hour and stir frequently and thoroughly to prevent any sticking and scorching. Then add sugar, stirring it in very well. Reduce temperature and cook until butter is thick and finely textured. Proceed as in general directions.

GUAVA BUTTER

You can use the pulp left from the guava jelly. So that you can get fine pulp, pass the guava pulp through a sieve. Measure. Add ¾ cup of sugar to every cup of strained guava pulp. Cook to a thick consistency. Pour into hot sterile jars and seal as in general directions.

PASTE (Pastillas)

Almost any fruit or a combination of different fruits may be used to make fruit pastes. These fruit pastes will make excellent eats for your visitors, family, and friends.

EQUIPMENT

Sieve
Saucepan
Measuring cups
Measuring spoons
Knife
Board
Wax paper

GENERAL DIRECTIONS

The principle of puree-making is to press the fruit pulp through a fine sieve or colander.

Cook hard fruits in enough water until they become soft. Allow a cup of sugar for every cup of sour fruit. For other kinds of fruit, allow ¾ cup of sugar for every cup. Stir the sugar into the puree and cook over low heat and stir frequently until the mixture is thick. Then cook over boiling water for 30 minutes more. For flavor and variety, add raisins, chopped nuts, chopped candied fruits or peelings. Pour a centimeter thick on sugared board and dry in a warm breeze or in a warm oven. Cut paste into squares, roll the squares in granulated sugar, and wrap in wax paper.

You can try preparing any of the fruit pastes below. Besides being excellent merienda for friends and family, they will also make you a "pastillas" expert. You can further try making other fruits into fruit paste.

CAMOTE PASTE (Pastillas de Camote)

2 c (½ kg) camote, boiled, mashed
1 c sugar
1 tin milk, evaporated (5½ oz)
½ c peanuts, chopped (unflavored)

Proceed as in general directions.

UBI PASTE (Pastillas de Ubi)

2 c ubi, boiled, mashed (½ kilo)
1½ c sugar
1 can milk, evaporated (5½ oz)

Proceed as in general directions.

PINEAPPLE-CAMOTE PASTE

1½ c camote, boiled, mashed
1½ c pineapple, chopped
1¾ c sugar

Proceed as in general directions.

MANGO PASTE

2 c mango pulp
1 c sugar

Proceed as in general directions.

SQUASH PASTE

2 c squash, boiled, mashed
1 c milk, evaporated (5½ oz)
1½ c sugar

Proceed as in general directions.

PILI PASTE (Turron de Pili)

1 c pili nuts, shelled
2 c sugar
1 c water
1 c vanilla

Toast peeled pili until light brown. Grind. Put sugar and water in a saucepan and cook into a thick syrup. Add the ground pili nuts, vanilla, and salt and continue cooking until a little amount hardens when dropped in a saucer of water. Proceed as in general directions.

CANDIED AND GLAC'EED FRUITS

You can prepare candied and glac'eed fruits by slowly impregnating fruits with syrup until the sugar concentration in the tissue is sufficiently high.

Candied fruit does not soften. Neither does it become jam-like, or tough and leathery. Treat fruits with syrup in slightly increasing concentrations. Wash and dry the fruits when you have impregnated them with sugar. You can pack or wrap the candied fruit even in this condition, or you may coat the fruit with a thin glazing of sugar. Sugar-coated candied fruit is called glac'eed fruit.

Fruits to be candied should be of top quality. They should be firm and ripe. Too soft fruit will not hold its shape during the processing. A small amount of corn syrup will prevent hard sugar crystals from forming; too much will make the finished fruit sticky and less flavorful.

EQUIPMENT

Candy thermometer or any laboratory thermometer with a temperature range of room temperature to 300^{0} or above.

Measuring cup and spoons
Food grinder
Saucepans
Shallow baking pans
Cooking spoon

GENERAL DIRECTIONS

Preparing candied fruits is a process which will take you more than one day.

First day. Prepare the fruit. Peel and leave whole, halves, or quarters, depending on size. Discard the seeds.

To prevent discoloration, drop cut pieces into cold water with ½ teaspoon ascorbic acid or 1 tablespoon salt for every 2 quarts of water. Work with not more than 1 kilogram of fruit in a batch.

The object of the first boiling is to modify the texture of the fruit so that it will absorb the syrup without shrinking. Put prepared fruit into boiling water sufficient to cover it. Bring the water to a boil. Boil rapidly for 3 minutes. This is sufficient parboiling for most fruits.

Drain the fruit in a colander, saving the water to make the starting syrup (3 cups sugar and 3 cups liquid). If the liquid in which the fruit was cooked is not enough, add hot water to meet the required amount. Heat the syrup until sugar is dissolved, then add the drained fruit and bring to a boil. Boil for 2 to 3 minutes. Turn the fruit and syrup into a china or porcelain bowl, which has been rinsed in hot water.

Weigh down fruits with a heavy plate to keep them submerged in the syrup, and let stand for 24 hours. Have enough syrup to cover the fruit. Any parts of the fruit exposed to the air will harden and discolor.

Second day. Drain the syrup from the fruit and add ½ cup each of sugar and corn syrup. Heat the syrup until the sugar is dissolved, add the fruit and bring to a boil. Boil for 2 or 3 minutes. Pour fruit and syrup into the bowl and again let it stand for 24 hours.

Third day. Every 24 hours for 4 days or until syrup is as thick as honey, drain the syrup from the fruit and add 1 cup sugar. Heat the syrup until the sugar is dissolved, add the fruit and bring to a boil. Boil for 2 to 3 minutes. Pour the syrup and fruit into the bowl and let it stand for 24 hours.

Drain the syrup from the fruit, bring it to a boil. Let it boil until it registers 228°F on a candy thermometer. Pour the hot thick syrup over the fruit and let it stand for 7 days to permit the fruit to become as plump as possible. If fermentation or molding sets in at any time during the storage period, boil fruit and syrup for 2 or 3 minutes.

Drain the fruit in a colander, saving the syrup. Dip colander and fruit into simmering water for 3 seconds to remove the surface syrup. Place the pieces of fruit on cake racks so that they will dry.

You can use the syrup instead of sugar in canning or preserving. You can also dilute it with water to be used as starting syrup for a fresh batch of the same kind of fruit to be candied. To use the syrup again for candying: dilute 3 parts of the syrup with 7 parts water and start with Step 2 (second day).

Drying candied fruits

Dry the fruit until no syrup emits from its center. Sun-drying usually preserves the natural fruit color and results in a brighter product. If it is necessary to dry the fruit indoors, put the racks in a cool oven (100°F) for 8 to 10 hours. Leave the oven door open to provide ventilation.

Finishing candied fruits

Crystallized fruit is the easiest to finish. Before the fruit is completely dry, roll each piece in graulated sugar and complete the drying.

Glazed fruit — quick method

Combine 2½ cups sugar and ¾ cup water and bring to a boil. Boil for 3 minutes. Lift each piece of candied fruit with a fork and dip it into the syrup. Place on racks to harden and dry under the hot sun or a cool oven (100°F) for about 4 hours.

You can use leftover syrup either as sugar substitute or as table syrup.

Preventing spoilage

Prevent mold growth by drying candied fruit thoroughly before packing.

Storing candied fruits

Stored candied fruits will last for not more than 3 months, even when stored under ideal conditions. Wrap each piece in wax paper and store in wooden boxes lined with wax paper.

If hard or filled with sugar, boil candy in water until tender. Go through candying process but use a larger proportion of corn, or invert the syrup to prevent crystallization.

Shriveled fruit may be boiled in water and allowed to stand until tender and plump. Then return it to the syrup and proceed with the candying process.

Candied fruit packed in boxes may become infested with insects. Use boxed candy within 6 to 8 weeks after packing unless the containers are insect-proof or the candy is refrigerated.

CANDIED CITRUS FRUIT PEEL

Citrus fruit peels may be candied by the general method for candying fruits. Orange, lemon, and grapefruit peel must, however, be cooked in boiling water for about 60 minutes or until tender. For grapefruit peel, several changes of water are necessary to remove excess bitterness from the peel. Corn syrup should replace the sugar in at least 2 steps, to produce a soft, moist product.

Select citrus fruit with brightly colored thick peel, free of blemishes. Wash the fruit and rub the surface with a fine grater to break the oil cells. Remove the peeling and cut into strips. Cover the strips with cold water, bring to a boil, and simmer for 10 minutes. Drain, cover with cold water, and bring to a boil.

If the peel is orange or lemon, it needs no further change of water — simply boil it for about 60 minutes or until it is tender. If the peel is grapefruit, the boiling process must be carried out in several changes of cold water to remove the bitterness.

Sometimes as many as 6 to 7 changes of water are needed for a mild-flavored peel. Begin with cold water each time. Finally, when the peel tastes just right, continue boiling until tender.

For each pound of peel dissolve 1 cup of sugar and corn syrup in 2 cups water and bring to a boil. If you prefer ar-

tifical color, add 3 drops of vegetable coloring to the syrup. Boil the syrup until it registers 220°F on a candy thermometer. Add the peel and cook until it becomes transparent. The syrup should not be allowed to get above 220°F, so it may be necessary to add 1 tablespoon of boiling water from time to time.

If the peel is cooked too long or if the syrup becomes too concentrated, the peel will harden.

To test the peel for doneness, take a strip from the syrup as soon as it has become transparent, roll it in granulated sugar, and let it cool. If the peel stiffens enough to hold its shape as it cools, it should not be cooked longer.

Remove the peel from the stove, weigh it down with a china plate and let it soak in the syrup for 24 hours. Return the peel to the stove, bring the syrup to a boil until the syrup registers 226°F. Soak the peel in the syrup for 48 hours, then pack peel and syrup in jars and store for 4 to 6 weeks.

At the completion of the storage and plumping period, bring syrup and peel to a boil until the syrup registers 228°F on a candy thermometer. Place the peel on wire racks to drain and dry for several days in the hot sun, or for 24 hours in a cool oven (100°F). Leave oven door open to allow circulation of air. When the peel is almost dry, roll it in granulated sugar and complete the drying. Cool and pack in wooden boxes lined with wax paper.

CANDIED GRAPEFRUIT PEEL

Prepare the grapefruit peel, cover it with a solution of 2 parts water and 1 part lime water, and boil for 30 minutes. Drain, cover with fresh water, and cook for another 30 minutes. Repeat with cold water, until the peel does not taste too bitter. About 3 changes of water will give a characteristic bitter flavor. For mild-flavored peel, change the water 5 to 6 times. Drain and gently press out excess moisture.

For each pound of peel dissolve 1 cup each of sugar and corn syrup in 2 cups water. Add the peel, cook slowly for an hour and let the peel soak in the syrup for 48 hours. Bring the syrup again to a boil and boil until the syrup registers 228°F on a candy thermometer. Drain the syrup from the peel, roll the peel in granulated sugar, and let it dry for several days at room temperature. Store in air-tight jars or cans.

GLAZED NUT

Combine 1 cup water, 1/2 cup corn syrup and 2 cups sugar. Bring the syrup to a boil and boil briskly for 12 minutes, without stirring, or until it registers 310°F on a candy thermometer. Immediately lower the pan in cold water to stop the boiling and then put the pan over boiling water to keep it hot while the nuts are being glazed. Drop a few nuts into the syrup, pick them out with long tweezers, and place them on oiled platters. If the syrup becomes too think before all the nuts are glazed, add about 1 tablespoon hot water and bring the syrup again to a boil.

CANDIED SANTOL

Blanch santol for 10 minutes. Peel, remove the seeds and cut pulp into desired pieces. Prepare candied santol pulp as in general directions.

CANDIED RIMAS

Peel rimas fruits. Cut into desired pieces and proceed as in general directions.

CANDIED GUAYABANO

Peel raw and unripe guayabano fruits. Cut into desired pieces and proceed as in general directions.

PRESERVES

Preserved fruit is cooked in syrup until tender and transparent. The fruit generally keeps its shape and color.

Fruits for preserving should be ripe but firm rather than soft. They should be uniform in size or in uniform pieces so as to be cooked evenly. The juice in the raw fruit and the hot syrup surrounding it are of different densities. As the fruit is cooked, the juice is drawn out of the fruit cells into the syrup and syrup takes its place. If the syrup is of medium density, it enters the fruit a little more slowly than the juice is drawn out. The fruit is shrunken and flabby but does not become tough. If the syrup is heavy, the juice is drawn out more rapidly than the syrup enters and the preserves shrink excessively, shrivel and toughen. The outer surface of the fruit quickly becomes coated with a thick syrup, preventing the syrup from penetrating the heart of the fruit.

Glass fruit jars are the most satisfactory containers for preserves. Fill jars ¾ full with the preserved fruit and then add enough of the syrup to completely fill the containers. Seal jars while hot.

EQUIPMENT

Colander
Bottles
Tongs
Saucepan
Candy thermometer
Measuring spoons
Measuring cups
Knife
Board

GENERAL DIRECTIONS

Cook the fruit until the thermometer registers from 222°F to 226°F. For very sour fruits, the best finishing point is 226°F. When preserves are packed hot in hot sterile jars, no further processing is necessary. In most cases, when preserves are packed cold, it is wise to process the jars in a water bath. Since the sugar syrup is a preservative in itself, it is only necessary to guard against molds. Placing the jars for about 20 minutes in simmering water (180°F to 190°F) is all that is required to destroy molds.

You can add the sugar to the fruit in several different ways, depending on the type of fruit used.

1. Sprinkle sugar on juicy fruits and berries and let stand overnight. The sugar draws out the fruit juice, making enough liquid to form a syrup without the addition of any water. This prevents floating of fruits.

2. Cook juicy fruits with firm skin, such as plums, directly in medium syrup. As the juice cooks out, it thins the syrup to the right degree to let the syrup enter the cells of the fruit.

3. Put firm fruits directly into thin syrup. This will give them time to soften before the syrup becomes too concentrated.

4. Put sour or acid fruits which will not crystallize readily into a heavy syrup.

5. Add sugar instead of syrup to fruits such as strawberries that develop a strong flavor when cooked too long. Cooking can be rapid and a large proportion of sugar can be used.

If the syrup becomes too thick during the cooking process, add about ½ cup of boiling water from time to time. When the fruit is tender and transparent, sugar syrup has replaced the fruit juice in the cells. At this point, the syrup may be allowed to thicken as it boils with the fruit. The cooking evaporates the water in the syrup, concentrating it to a higher density. Or the syrup may be concentrated by alternate cooking and resting periods. Most preserves are improved by standing immersed in the syrup for 12 to 24 hours. This gives the fruit a chance to plump and the syrup to thicken.

Variations will make each jar unique. A few cherries, whole or chopped, or ½ cup seedless raisings add a special touch to pale preserves. Add them a couple of minutes before taking the preserves from the fire. Nuts, halved or chopped, may also be added as you take the preserves from the stove.

Use a little pineapple or orange juice instead of water to add flavor to bland fruits. Grated orange or calamansi rind or a

little newly-ground nutmeg points up the flavor of many preserves. Mixed spices tied in a bag — cinnamon or ginger, cloves or allspice, or a mixture of all of these may be cooked with any preserve.

When the syrup has been concentrated to the right density, you may flavor it with wine or spirit. Add this (wine) to the syrup after the preserve has been taken from the fire.

Process preserves after packing to prevent molds. Sterilizing jars is not necessary in this case.

CAUSES OF UNSATISFACTORY RESULTS

RESULT	CAUSE	REMEDY
Preserves shriveled	Too heavy syrup	Start in thin or medium syrup.
Tough preserve	Unusually hard fruit	Partially cook in clear water before adding to syrup. Start in thin syrup.
Broken or Breaking-up	Too thin syrup Overripe fruit Stirring while cooking	
Dark color	Too long cooking (Too large quantity cooked at 1 time)	
Strong flavor	Too long cooking Sugar added at beginning of process	
	Too low concentration Insufficient evaporation due to too short a cooking period	
Mold	Too little sugar Not sealed immediately Nuts and glasses not sterilized	
Crystallization of sugar	Too high concentration of sugar Over cooking Too late addition of sugar	

PRESERVING FRUITS AND NUTS

1. Select firm-ripe (not soft-ripe) fruits which are uniform in size.
2. Prepare the fruit. Leave small fruits whole and slice large fruits.
3. Drop fruits into boiling syrup and cook rapidly over a hot fire until clear and tender. Fast cooking will result in a sparkling and bright product. Slow cooking dulls the fruit and darkens the color. At all times the fruit must be well covered with syrup. If the syrup becomes too thick before the fruit is tender, add boiling water ½ cup at a time.

Use thinner starting syrup for sweeter or harder fruits. To make the syrup, dissolve the sugar in the water, bring to a boil. Keep it boiling for 5 minutes.

PREPARING SYRUP OF VARIOUS DENSITIES

CHARACTER OF THE FRUIT	CHARACTER OF SYRUP TO USE	AMOUNT OF SUGAR PER 4 CUPS OF WATER
Very sweet or very hard	Thin	2 c sugar
Medium sweet or medium hard	Medium	3 c sugar
Sour and soft	Heavy	4 c sugar

SANTOL PRESERVE

Pulp from ½ kg. santol **2 c water**
2 c sugar

Wash and blanch santol for 5 minutes. Place in cold water and peel thinly. Cut into halves. Boil in several changes of water for 15 minutes. Strain and cook in syrup for 30 minutes. Proceed as in general directions.

NANGKA PRESERVE

Pulp from ½ kg. nangka **5 c water**
2½ c sugar

Combine sugar and water in a saucepan. Bring to a boil and drop fruit. Continue cooking until fruit becomes tender and transparent. Remove fruit and allow syrup to thicken at a temperature of 222°F. Pack fruit into hot sterilized jars and pour thickened syrup.

PINEAPPLE PRESERVE

Pulp (cut into pieces) from **2½ c sugar**
½ kg. pineapple **5 c water**

Proceed as in general directions.

MACAPUNO PRESERVE

Grated macapuno (1 nut) **1 c water**
2½ c sugar

Prepare syrup. Drop macapuno and cook until tender, transparent, and the syrup, thick. Pack into hot sterilized jars and seal.

CAMIAS PRESERVE

50 large camias
5 c sugar
2½ c water

Press the juice by rolling a flat bamboo stick over the camias. Squeeze the camias lightly with the hand. Soak in cold water until the juice is entirely removed. Boil the camias. Immediately, remove the camias from the boiling water. When cool, squeeze lightly. Proceed as in general directions.

CANTALOUPE PRESERVE

Pulp from ½ kg. cantaloupe
1 c sugar
juice from 1 lemon

Cut the firm-ripe melons into one-inch slices, crosswise. Remove rind and seed. Cut the slices into uniform pieces. Mix melon with sugar. Cover and let stand for 12 hours in a cool place. Add lemon juice. Heat slowly to boiling, then boil rapidly until tender and clear. Pack into hot jars; seal at once.

MANGO PRESERVE

6 c prepared mangoes
6 c sugar
2½ c water

Proceed as in general directions.

WATERMELON RIND PRESERVE

1 kg. watermelon rind
1 quart water
1 kg. sugar
½ lemon, thinly sliced
1 piece ginger root if desired

Select thick watermelon rind and trim the outer green skin and the pink flesh, using only the greenish-white part. Cut into ½ or 1-inch cubes and weigh. For each kilogram of the prepared rind, prepare ½ quart of lime water containing ½ tablespoon of lime (calcium oxide). Let the melon stand in lime water for an

hour to make crisp. Drain and place in clean water for 1 hour. Drain and boil for 1½ hours in fresh water. Drain again.

Boil the lemon for 5 minutes in ½ cup of the water. Boil the rest of the water with the sugar for 5 minutes to make a syrup. Add the watermelon and the ginger root to the syrup. Boil for about an hour. When the syrup thickens, add the lemon and the water in which it was cooked. Continue to boil, stirring constantly, until the syrup is somewhat thick and the melon is clear. Pack at once into hot sterilized jars and seal.

STORING THE PRESERVED FRUITS

Bottling

Successful storage of your preserves will include your selection of jars or bottles. These jars or bottles will serve as containers of the preserves.

Whether or not you intend to keep your preserves for a long period, it is very important to choose your jars very carefully. Sometimes, the original contents of these jars leave certain odors which become difficult to remove. You can try removing the odor by means of soap or chemical solutions, but if the odor persists by no means should you use the jars for your preserves

Examine the rim of the jars carefully. If there are any cracks or any other imperfections which you suspect will harm the composition of your preserves, do not use them. The covers of the jars must be free from cracks or flaws.

Once you have chosen good jars, your next step is to clean them very well. It is best if you soak the jars in a soap-and-water solution. Leave them soaked until the tiny particles of dirt have been removed from the edges and corners. Rinse very well with clean water.

Your next step is to sterilize all the jars. Put them all together with a pair of tongs in a big kettle filled with water, and boil for about ten minutes. Drain jars with the aid of tongs; do not wipe. Sterilize covers by placing them in boiling water 2 to 3 minutes before putting them on the jars.

Remove them from the kettle of water only when you are about to use them, or when the preserve is about to be cooked. As soon as the preserve has settled and cooled in the jars, dry the jars with care so that the preserve does not spill on the brim of the jars. Seal upper part of the jars with paraffin.

Place the dry lid on the jar, stick the label on the side, and store the jar in a cool, dry and dark place.

From time to time, inspect your jars for flaws or cracks This is especially important if you keep a stock of bottle or jars where you place your jars such as jams, jellies, conserves, and the like.

Labelling

Preservation also includes such post-preservation chores as labelling your preserves. Besides leading to a well-organized kitchen, these chores will also simplify your work.

You are probably used to seeing labels on manufactured goods. Labels guide you in knowing the name of the product, the weight, ingredients used, and other information you might want to know about it. Truly, they are a time-saving device which businessmen and food manufacturers have found useful in their enterprise. Labels, however, are not limited to business concerns or food assembly plants alone. You can make use of them so that you will not be confused when faced with a whole array of preserves, especially if you are the type of homemaker who is fond of keeping many jars of preserves on your kitchen shelves. At a single glance, you will be provided with all the information you need. You can make your own labels for your preserves, putting in your imaginative and creative abilities to make your labels distinctly your own.

What information should you include in your label?

1. Usual or common name of the product.
2. Net contents in weight or liquid measure
3. Your name and address
4. List of all ingredients in the order of decreasing amount
5. Style of pack (whole, halves, sliced or diced)
6. Variety
7. Sweetness of syrup (light, heavy or extra heavy)

You may also add the following:

1. The brand name (your own invented brand)
2. An eye-catching design or decoration
3. Size and maturity of fruits
4. Seasoning
5. Number of pieces or serving
6. Recipes and suggestions for using the food.

Choose any color of paper and write the above information in the order of their importance (as numbered above). Decide how big or how small your labels will be. This will depend largely on your aesthetic sense. It will be best, however, if you try to have the same size and the same print for jars of the same size. Stick the labels very well to the jars so that they will not fall off.

FB 1—New Ways with Rice (Recipe Book)	1.00
FB 2—Growing Pepper, Eggplant and Tomato	0.60
FB 3—Beef Cattle Farming	0.80
FB 4—Raising Dairy Calves	0.80
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